

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

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KENNETH ALTON SMITH, JR. and

Civil Action

CHERYL SMITH, Plaintiffs,

No 08-CV-07219-GEL

-against-

ANCHOR PACKING COMPANY et al.,

Defendants.

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DECLARATION OF CAPTAIN ARNOLD P. MOORE, USNR (RET.), P.E

I, Arnold P. Moore, declare the following:

1. I have been continuously licensed as a Professional Engineer for over 28 years. I recently retired as the Sector Vice President, Engineering for a major builder of United States naval warships. I am also a retired Captain, Engineering Duty, United States Naval Reserve.

2. I began my Navy career in 1968 immediately after receiving a Bachelor of Science degree from the United States Naval Academy with a major in Naval Science and a minor in Naval Architecture. I served eleven years of active duty in the Navy. During this time I concentrated on shipboard engineering and the repair and overhaul of Navy ships.

3. My first two tours of duty were in the engineering departments of steam powered naval ships. During these tours I qualified as a Surface Warfare Officer and as the Engineering Officer of the Watch on the heavy cruiser USS Newport News. From 1972 until 1975 I was a Navy sponsored graduate student at the Massachusetts Institute of Technology in the Naval Ship Design and Construction curriculum. This three year program focused a number of courses upon steam propulsion and shipboard machinery and included courses in thermodynamics, fluid dynamics, heat transfer, and materials science as well as boiler, turbine and pump design. I

received both a Master of Science degree in Naval Architecture and Marine Engineering and the Professional Degree of Ocean Engineer from MIT. Upon graduation from MIT, I was assigned to Charleston Naval Shipyard as a Navy Engineering Duty Officer. This tour included two years as a Ship Production Superintendent responsible for directing all repair work during overhauls of steam propulsion destroyers and nuclear submarines. This job provided daily contact with civilian shipyard workers and the crewmen of ships being overhauled. I also served two years in the same shipyard as an overhaul program manager responsible for overhaul planning, financial management, work authorization and customer interface.

4. In 1979, when I completed my obligated service for my post graduate education at MIT, I resigned my active duty commission and entered both my civilian career and the Naval Reserve. My first civilian job was with the Charleston Office of M. Rosenblatt and Son, Inc., a marine engineering design firm. I served 18 months as Chief Naval Architect and 18 months as Technical Director of this office. During that time we designed ship alterations to modernize destroyers, tenders and mine sweepers. As Technical Director I was also responsible for oversight of the preparation and review of Navy system technical manuals. This job included close interaction with Navy officials and employees during the review and approval process of technical manuals, drawings and other documents

5. From August 1982 until January 2007 I worked as an engineering executive at Ingalls Shipbuilding. This company was owned by Litton Industries until 2001 when Litton was acquired by Northrop Grumman. I entered Ingalls as Chief Naval Architect responsible for the leadership of over 300 naval architects, structural engineers and designers. Three years later, I was promoted to Director, Design Engineering responsible for 1000 employees in all engineering disciplines involved in the design of new construction cruisers, destroyers and amphibious assault ships. My responsibilities included supervision of the group that worked with equipment manufacturers to prepare equipment and system technical manuals. This responsibility also required frequent interaction with Navy officials during the review process. In 1992 I was promoted to Vice President, Engineering responsible for a total of over 2000 engineers, designers and logistics personnel. In addition to the design of new construction warships I became responsible for Research and Development and Fleet Modernization Design. I continued to have responsibility for the group that worked with manufacturers in the development of technical manuals. I held the position of Vice President, Engineering for over 14 years until my

retirement in January 2007. During my tenure as an engineering executive we designed six major classes of naval warships and were responsible for modernization of three additional classes. All of these executive positions required very frequent participation in reviews of technical documentation with Navy officials and employees.

6. Concurrently with my civilian career, I completed 15 years of service in the Naval Reserve as an Engineering Duty Officer. This service included two days of active duty each month and two weeks of continuous service each year. This service was spent at Naval Shipyards, Supervisor of Shipbuilding Offices at private shipyards and the Naval Sea Systems Command working on naval ship engineering projects on a wide variety of naval ship classes. I retired from the Naval Reserve as a Navy Captain (O6).

7. I am licensed in three states as a Professional Engineer and registered nationally with the National Council of Examiners for Engineering and Surveying (NCEES). I am a Life Fellow of the Society of Naval Architects and Marine Engineers (SNAME) and the winner of the SNAME William M. Kennedy Award for Shipbuilding Systems. I am also a Life member of the American Society of Naval Engineers (ASNE). I am currently consulting with the U.S. Navy to provide shipbuilder perspective in the preparation of specifications for new classes of Navy ships.

8. A true and correct copy of my current Curriculum Vitae is attached as Exhibit 1.

9. I am aware that a lawsuit has been filed against several Defendant corporations, including Viad Corporation, individually and as successor in interest to Griscom- Russell Company ("Viad"), by Plaintiffs who allege injury by the exposure to asbestos and asbestos-containing products that Plaintiff Kenneth Alton Smith, Jr. received aboard the USS Intrepid (CV 11) from 1964 to 1968. I also understand that Plaintiff alleges that Defendant corporations, including Viad, failed to warn Plaintiff of the hazards related to asbestos in such products. I am further aware that Viad seeks to remove this civil action to the United States District Court for the Southern District of New York. Viad has taken the position, based on the Declarations of Lehman and Cushing, that Viad was prohibited by Navy specifications and standards from providing warnings concerning asbestos and asbestos containing products.

10. Based on my 26 years of experience as a Naval Officer and my 28 years of experience as a Naval Architect and Marine Engineer directing the design of United States naval warships as well as my review of Navy specifications and standards from the 1930's, 1940's, 1950's and

1960's I can attest to the instructions the Navy required its equipment manufacturers to provide to warn of hazards associated with equipment delivered to the Navy. Based upon my experience interacting directly with Navy officials and employees during the review of drawings, technical manuals, specifications and other technical documentation I can attest that Navy officials and employees followed and enforced these specifications and standards.

11. The U. S. Navy did not prohibit manufacturers and providers of material to the Navy from providing warnings and safety precautions concerning their products. In fact beginning in the 1930's and continuing throughout the 1940's, 1950's and 1960's and to the present time, Navy specifications and standards specifically required equipment manufacturers and other vendors providing materials to the Navy to provide warnings concerning hazards associated with their products. The hazards associated with exposure to asbestos and asbestos containing materials and equipment were not exempted from these requirements. I attest, based both on my own experience and the reading of Navy requirements and specifications that the Navy relied heavily upon its manufacturers and vendors to identify hazards associated with their products.

12. The Bureau of Engineering, Navy Department, issued General Specifications for Machinery, Subsection S1-1, PLANS, on 1 December 1936. A copy of this document, in relevant part, is included as Exhibit 2. Section S1-1-h of this specification required machinery manufacturers to provide installation, operating and maintenance instructions as well as "safety precautions" as an essential part of Instruction Books for machinery. This specification very clearly indicates that the U.S. Navy did not intend to dictate warnings and safety precautions to manufacturers and other providers of material to the Navy. It also clearly demonstrates that the Navy did not intend to prohibit such warnings and safety precautions. In fact, the U.S. Navy considered the manufacturers and not the Navy to be the true experts concerning the design, manufacture, operation, maintenance, configuration and composition of materials for their products and consistently consulted manufacturers on these matters. As stated in Exhibit 2, the Navy fully expected and required machinery manufacturers to identify and provide safety precautions and warnings for hazards associated with their products. Exhibit 3 is a copy, in relevant part, of the 1 March 1941 edition of this document and it contains the same requirements.

13. Attached as Exhibit 4 is a copy, in relevant part, of military specification, MIL-B-15071A (SHIPS) dated 20 October 1952, which details the Navy's requirements concerning the contents of technical manuals for electrical and mechanical equipment. This is one of the series of specifications that replaced the General Specifications for Machinery, Subsection S1-1, PLANS (Exhibits 2 and 3) to govern the information to be provided by machinery manufacturers with their equipment. All of the other editions of this specification for the 1950's through 1967 are included as Exhibits 5 through 9 and are discussed in the following paragraphs. Sections 3.4.1.1 and 3.5.1.1 of the 1952 edition specifically require a safety notice for "special hazards" involved with the product. Section 3.4.1.8.1 (f) requires instructions to maintain safety devices to prevent damage to equipment or injury to personnel. Section 3.3.5 specifically directs that two copies of manuals be shipped along with each unit of equipment. Combined with the requirement to provide safety notices for hazards, this requirement clearly indicates the Navy's intent to provide information about hazards with the equipment. New pages are required by section 3.3.4.1 "when it is found necessary to include new information to augment the instruction book data". This requirement provides the mechanism to add hazard warnings to the manual if hazards are detected after the manual has been shipped.

14. Attached as Exhibit 5 is a copy, in relevant part, of the 16 August 1954 edition of the military specification discussed in paragraph 13, MIL-T-15071B (SHIPS). It invokes the same requirement for safety notices for hazards in sections 3.5.1.1 and 3.6.1.1. Section 3.5.1.8.1 also contains the same requirement to provide instructions to maintain safety devices. Section 3.2 not only requires shipping two copies of the manual with each unit of equipment but also provides for distribution throughout the Navy. Section 3.6.1.3 requires "precautions" to be identified during installation of equipment. Section 3.4.5.1 contains the same language as the 1952 version for preparation of new pages for new information.

15. Attached as Exhibit 6 is a copy, in relevant part, of MIL-M-15071C (SHIPS) which is the 10 September 1957 edition of the military specification for mechanical and electrical technical manuals. Section 1.1 clearly states that the requirements in this manual are the minimum acceptable requirements. Sections 3.3.3.2 and 3.4.3.2 provide for the usage of "emphatics" in capital letters to be provided adjunct to the text to highlight notes, cautions and warnings. "WARNINGS" are clearly required for: "operating procedures, practices etc, which will result in personal injury or loss of life if not correctly followed". Section 3.3.1.2.5 requires safety

precautions as a part of operating instructions and section 3.3.1.2.6 requires safety precautions for installation instructions. Section 3.3.1.2.7.1 maintains language requiring instructions for maintenance of safety devices. Section 3.1.6.1 retains the requirement for new pages for new information. Section 3.6.1 requires the shipment of two copies of the manual with each unit of equipment and distribution throughout the Navy.

16. A copy of MIL-M-15071D (SHIPS) dated 6 June 1961 is attached, in relevant part, as Exhibit 7. This specification states in section 1.1 that "The intent is to accept the manufacturer's commercial type of manual or one prepared in accordance with his commercial practice whenever it is roughly equivalent to the detail requirements included herein." This statement clearly indicates that the United States Government intention at this time was to accept commercial practices which are governed by state law. This intent is amplified by section 3.1.3 "Emphasis-The Bureau of Ships is mainly interested in the adequacy and completeness of contents and the clarity and readability of the information rather than the format." Section 3.3.6 maintains the requirement to utilize capitalized notes, cautions and warnings for emphasis preceding applicable instructions. Section 3.1.7 requires instructions for precautions during equipment installation, section 3.1.9 requires safety precautions for operating instructions and section 3.1.10.1 requires that instructions stress the importance of properly maintaining safety devices to prevent damage to equipment or injury to personnel. Section 3.5 maintains the requirement for new pages for new information and section 3.7 maintains the requirement to ship two copies with each unit of equipment and to provide copies throughout the Navy.

17. Exhibit 8 is a copy, in relevant part, of MIL-M-15071E (SHIPS) dated 15 April 1962 governing the preparation of Navy Equipment and Systems Manuals. In section 3.7.3 the government continues its emphasis on adequacy, completeness, clarity and readability rather than format. Section 3.7.5 contains the same requirement as in prior revisions upon the use of "NOTES", "CAUTIONS" and "WARNINGS" preceding instructions. Section 3.3.3 defines the requirement for installation instructions to include precautions during equipment unpacking and handling as well as safety precautions during installation. Safety precautions during operation of equipment are required by section 3.3.4. Section 3.4.1.1 maintains the requirement to provide instructions for the maintenance of safety equipment and section 3.5.3.2 requires repair instructions to include any "cautions or warnings which must be observed to protect personnel

and equipment". Section 3.10.2 provides detailed instructions for providing new pages for new information.

18. A copy of MIL-M-15071F (SHIPS) dated 28 August 1967 is included, in relevant part, as Exhibit 9 for continuity. It reads essentially the same as exhibit 8 except that section 3.10.1, rather than section 3.10.2, provides the detailed instructions for providing new pages for new information.

19. Exhibit 10 is a copy, in relevant part, of the 1942 Navy Shipment Marking Handbook that governed shipping requirements for all material provided during the construction of the USS Intrepid (CV11) at the Newport News Shipbuilding Company early in WW II. Paragraph 7 of this document states: "Any necessary instructions for assembling of material or **warning** as to handling, storage and operation shall be packed with such material." (emphasis added) This statement very clearly indicates the U.S. Navy's expectation that manufacturers of material for the Navy would identify and provide warnings concerning any hazards that might be encountered in the handling, storage or operation of their products. Paragraph 8.(a)(11) of this handbook states: "The following markings shall appear on the outside face of each package in accordance with accompanying illustrations.....special markings such as top, glass, acid, explosives, keep dry, handle with care, fragile, delicate instruments, and such other markings and handling instructions or **warnings** as may be required by the Interstate Commerce Commission or **other regulations**." (emphasis added) This paragraph explicitly required warnings for hazardous materials and fully acknowledged that other regulations, such as state laws, must be followed. Paragraph 10.(e) of this handbook states: "*special assembly instructions or warnings*.- When such instructions are necessary, shipping activities shall see that they accompany the shipment and that they are conspicuously indicated." This statement required warnings when hazards, such as asbestos containing materials, might be expected in the assembly of products.

20. The UNIFORM LABELING PROGRAM – NAVY, dated 9/24/56, provides additional evidence of Navy intent. A copy of this document is included, in relevant part, as Exhibit 11. Paragraph 1.c. of enclosure (3) to this document provides the Navy definition for a Class III, Toxic hazard as "Any industrial or military material which may give off a harmful vapor, dust, fume, or mist during handling or operations. The injurious effect may arise from one exposure (acute) or from repeated exposures over a prolonged period (chronic). The mode of entry into the body

may be by ingestion, inhalation, or absorption through the skin.” Paragraph 2 of the main body of this document states that “This instruction applies to the labeling of all hazardous materials throughout the Naval Establishment wherever distribution of hazardous chemicals and materials is made to the actual consumer (shop, office or unit). It applies to materials received from any supply source, provided the material is intended for ultimate use at the local activity.” Taken together these two paragraphs clearly apply to asbestos containing material delivered to a shipyard for installation aboard a Navy ship. In paragraph 2.a. this document refers the reader to the “Warning Labels Guide” published by the Manufacturing Chemists’ Association for guidance on the type of labels to be affixed. This guide is discussed in the next paragraph of this declaration.

21. Exhibit 12 is a copy, in relevant part, of a document entitled WARNING LABELS, Manufacturing Chemists Association and is dated April 1946. The forward to this document states that there is a need to furnish appropriate information in those cases where special precautions are necessary and that information concerning hazardous materials should reach every person using, transporting, or storing these items. It also states that the most practical means for the seller to disseminate this information appears to be labels affixed to containers. The forward also states that “a precautionary label does not take the place of safety equipment, such as goggles, airline respirators, gas masks, clothing, shoes etc.” This statement clearly shows that appropriate safety equipment for use with asbestos and asbestos containing equipment was available in 1946 and in common use in industrial environments. Page 5 of this document provides definitions for hazardous substances. The definition for dust is “Solid particles generated by handling, crushing, grinding, rapid impact, detonation, and decrepitation of organic or inorganic materials such as rock, ore, metal, coal, wood, grain etc.” Asbestos fully meets this definition. Page 7 of this document provides a label for use with “Harmful Dusts”. It reads: “CAUTION: HARMFUL DUST. Avoid repeated breathing or skin contact. Wash thoroughly before eating or smoking. Keep away from feed or food products” This simple document clearly indicates that warnings for hazardous materials, including dusts such as asbestos fibers, were widely used in industry in the 1940’s and that practical safety equipment for protection from exposure to these hazardous substances was also in common use.

22. Exhibit 13 is a copy, in relevant part, of a Foster Wheeler Boiler General Arrangement Drawing (FW Drawing Number NY-420-907; Bureau of Ships Number DD692-S5101-245177)

dated 11-18-43 and approved by the U.S. Navy on 4-15-44. This drawing specifically requires a boiler component to be equipped with a warning plate. Clearly this drawing illustrates that the U.S. Navy did not prohibit manufacturers from providing warning plates when manufacturers deemed them necessary.

23. A copy of the Navy magazine All Hands dated April 1957 is enclosed, in relevant part, as Exhibit 14. It contains a "Five Minute Course on Navy Safety" which illustrates that the Navy was interested in protecting its people in the 1950's. One segment of this course stresses the importance of reading equipment safety manuals. From this one can assume that the Navy expected vendors to include safety precautions and hazard warnings in their manuals. Several segments of the course stress the importance of properly utilizing safety equipment. This indicates a favorable Navy attitude toward the use of safety equipment to mitigate the risks involved in working with hazardous materials and equipment.

24. The Lehman Declaration of 11 August 2008 is Exhibit F to Viad's Notice of Removal. In paragraph 8 of his Declaration, Lehman states without substantiation that: "the Navy controlled the decision making with respect to instructions and warnings on every piece of equipment." The Navy did have the authority to review instructions and warnings provided by manufacturers but very clearly assigned the responsibility to identify and develop warnings and instructions to the manufacturers of the equipment. This is thoroughly discussed with extensive Navy documentation in my paragraphs 11 through 19. Lehman does not assert nor does he cite any examples indicating that the U.S. Navy actually rejected or modified any warnings proposed by Griscom- Russell or any other manufacturer. In paragraph 9 of his Declaration, Lehman states, again without documentation, that: "The Navy determined the nature of hazards to be subject to any precautionary labeling and the content of any such labeling." This statement is completely incorrect. As detailed extensively in my paragraphs 11 through 19, the U.S. Navy clearly and consistently assigned the responsibility to determine the nature of hazards for safety precautions, warnings and labeling to the manufacturers who were the true experts on the design, configuration and composition of materials for their products.

25. The Cushing Declaration of 12 August 2008 is Exhibit E to Viad's Notice of Removal. In paragraph 5 of his Declaration Cushing states without substantiation that: "pursuant to the U.S. Navy's specifications, Griscom-Russell would not have been able to affix to its products any type of warning or cautionary statements concerning alleged health hazards from the

installation, use or maintenance of the products. Whether certain equipment used aboard U. S. Naval vessels should have warnings, and the content and format of any such warnings, was determined solely by the U.S. Navy. Griscom-Russell would have had no discretion whatsoever to affix any warnings of its own to products it delivered to the U. S. Navy.” In fact U.S. Navy specifications and procedures **require** the labeling of hazardous materials and place the burden of identifying those materials upon manufacturers and providers of Navy material. Two of these documents, the Navy Shipment Marking Handbook, Exhibit 10, and the Uniform Labeling Program, Exhibit 11, are discussed thoroughly in my paragraphs 19 and 20. Exhibit 13, discussed in my paragraph 22, clearly demonstrates that the U.S. Navy did not prohibit manufacturers from placing warning plates directly on their equipment.

26. In my 40 year career as a Navy Surface Warfare Officer, Engineering Duty Officer, naval architect, marine engineer and shipyard engineering executive I have participated in literally hundreds of reviews of specifications, engineering drawings, equipment and machinery procurement documents and technical manuals with U.S. Navy officers, senior civilian officials and employees. I can personally attest that at no time during any of these reviews did any Navy officer, official or employee suggest that a proposed warning or safety precaution be prohibited or deleted from the document being reviewed. I can attest that at no time did any Navy officer, official or employee attempt to dictate the specific wording or content of a warning or safety precaution proposed by a manufacturer, shipbuilder or provider of material to the Navy.


27. In summary, my paragraphs 12 through 18 discuss the military specifications that governed the preparation of technical manuals for Navy machinery from 1936 until 1967. These documents specifically place the requirement upon equipment manufacturers such as Viad to identify hazards and safety precautions needed to handle, install, maintain and repair their equipment and to provide instructions in their manuals to maintain safety devices associated with their equipment. Beginning in 1957 manufacturers were required to add capitalized emphasis in the form of “CAUTION” and “WARNING” statements to their manuals preceding potentially dangerous or hazardous operations. Manufacturers were required to pack equipment technical manuals with each unit of equipment so that safety and hazard warnings would be available to those handling and installing the equipment as well as to sailors such as Mr. Smith who maintained the equipment. Additionally vendors were required to provide copies to many Navy organizations including Naval Shipyards. New pages were required to be

prepared by manufacturers whenever new information, including hazards, about their equipment became known. MIL-M-15071D (SHIPS), Exhibit 7, required manufacturers to utilize commercial manuals or utilize commercial practices in their preparation. This indicates Navy intent to comply with commercial practices consistent with state laws. The Navy Shipment Marking Handbook, Exhibit 10, also conveys U.S. Navy intent to follow "other regulations" such as state laws. My paragraphs 19, 20 and 21 outline Navy and industry practices in the 1940's and 1950's for labeling hazardous materials including dust producing substances such as asbestos. The use of practical safety equipment for dust producing hazardous materials is also discussed. Exhibit 13 illustrates that manufacturers were allowed to place warning plates on their equipment during WW II. The 1957 All Hands magazine indicates that the Navy was serious about protecting its people and encouraged the use of safety equipment and safety manuals.

28. Lehman and Cushing both contend that the U.S. Navy determined what safety precautions and hazard warnings were to be included with Navy machinery and that machinery manufacturers such as Viad were not permitted to place warnings or safety precautions on their products or in their equipment technical manuals. In fact, beginning in 1936, manufacturers were required to include hazard warnings and safety precautions in their machinery Instruction Books. The Navy did have review and approval authority for these books but no evidence has been presented that this authority was used to remove or modify warnings or safety precautions. My Exhibits 2 through 9 are the military specifications for preparing equipment technical manuals from 1936 until 1967. Nowhere in any of these specifications does the Navy either direct the use of a specific warning or caution or prohibit the use of any specific warning or caution. Instead the Navy places the requirement upon equipment vendors to identify hazards and safety precautions required for their equipment and to provide appropriate warnings and cautions for this equipment. Vendors were free to include state-dictated warnings, subject to Navy review and approval, if they deemed such warnings appropriate for their equipment. I have attested that based on my own extensive interface with Navy officials and employees involved in the review and approval of technical manuals, specifications, drawings and other documents, I have never been asked to remove or modify a hazard or safety warning or caution. Nor have Lehman or Cushing attested that they were ever asked to do so. There are no regulations or documentation that I have reviewed or that have been presented by Lehman or Cushing that would suggest that the Navy would have prevented any equipment manufacturer from warning about asbestos hazards associated with their products.

I declare under penalty of perjury that the foregoing is true and accurate.

Executed this 8th day of September 2008.



Arnold P. Moore